CLAIMS

1. A nucleic acid vector comprising: (i) a promoter; (ii) a sequence encoding a polypeptide from a member of the HML-2 subgroup of the HERV-K family of endogenous retroviruses, said sequence being operably linked to said promoter; and (iii) a selectable marker.
2. The vector of claim 1, further comprising: (iv) an origin of replication; and (v) a transcription terminator downstream of and operably linked to (ii).
3. The vector of claim 2, wherein: (i) & (v) are eukaryotic; and (iii) & (iv) are prokaryotic.
4. The vector of any preceding claim, wherein the HML-2 is PCAV from human chromosome 22.
5. The vector of any preceding claim, wherein the promoter is functional *in vivo* in a human.
6. The vector of any preceding claim, wherein the promoter is a viral promoter.
7. The vector of claim 6, wherein the viral promoter is from cytomegalovirus (CMV).
8. The vector of any preceding claim, comprising transcriptional regulatory sequences in addition to the promoter.
9. The vector of any preceding claim, wherein the HML-2 polypeptide is a gag, prt, pol, env, cORF or PCAP polypeptide.
10. The vector of claim 9, wherein the HML-2 polypeptide: (a) has at least 65% identity to one or more of SEQ ID NO^{s}: 1-50, 69-74, 78 and 79; and/or (b) comprises a fragment of at least 7 amino acids from one or more of SEQ ID NO^{s}: 1-50, 69-74, 78 and 79.
11. The vector of any preceding claim, wherein the selectable marker functions in a bacterium.
12. The vector of any preceding claim, wherein the selectable marker is an antibiotic resistance genes.
13. The vector of any preceding claim, wherein the vector is a plasmid.
14. The vector of any preceding claim, wherein the vector comprises an origin of replication.
15. The vector of claim 14, wherein the origin of replication is active in prokaryotes but not in eukaryotes.
16. The vector of any preceding claim, further comprising a eukaryotic transcriptional terminator sequence downstream of the HML2-coding sequence.
17. The vector of any preceding claim, further comprising a multiple cloning site.

18. The vector of any preceding claim, further comprising an IRES upstream of a second sequence encoding a eukaryotic polypeptide.

19. A pharmaceutical composition comprising the vector of any preceding claim.

20. The vector of any one of claims 1 to 18 for use as a medicament.

21. The use of the vector of any one of claims 1 to 18 in the manufacture of a medicament for treating prostate cancer, testicular cancer, multiple sclerosis, and/or insulin-dependent diabetes mellitus (IDDM).

22. A method for raising an immune response, comprising administering an immunogenic dose of the vector of any one of claims 1 to 18 to an animal.

23. A method for treating a patient with a prostate tumor, comprising administering to them the pharmaceutical composition of claim 19.

24. A virus-like particle (VLP) comprising HML-2 gag polypeptides.

25. The VLP of claim 24 for use as a medicament.

26. The use of the VLP of claim 24 in the manufacture of a medicament for immunizing an animal.

27. A method of raising an immune response in an animal, comprising administering to the animal the VLP of claim 24.

28. A method for treating a patient with a prostate tumor, comprising administering to them the VLP of claim 24.

29. A method for diagnosing cancer in a patient, comprising the step of (a) contacting antibodies from the patient with the VLP of claim 24, and/or (b) contacting antibodies against the VLP of claim 24 with a patient sample.